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(71) Applicant (for all designated States except US): SEMA  
APS [DK/DK]; Willemoesgade 33, 1th, DK-2100 Copen-  
hagen (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CHRISTENSEN,  
Claus [DK/DK]; Gammel Kongevej 35E, 4th, DK-1610  
Copenhagen (DK). LUKANIDIN, Eugene [RU/DK];  
Willemoesgade 33, 1th, DK-2100 Copenhagen (DK).  
OLSEN, Ole [DK/DK]; Skovvej 77D, DK-2920 Char-  
lottenlund (DK). ALBRECHTSEN, Morten [DK/DK];  
Høstvej 7, DK-2920 Charlottenlund (DK).

(74) Agent: HØIBERG A/S; St. Kongensgade 59A, DK-1264  
Copenhagen (DK).

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(54) Title: USE OF COMPOUNDS CAPABLE OF INHIBITING THE PROTEOLYTIC PROCESSING OF SEMAPHORINS FOR PREVENTION, TREATMENT, DIAGNOSIS AND PROGNOSIS OF AN INVASIVE DISEASE

(57) **Abstract:** The present invention relates to use of compounds directed to inhibiting expression and/or proteolytic processing of semaphorins SEMA3E and/or sema3E and/or activation of a receptor by a proteolytic product of said semaphorins for the manufacture of a medicament for prevention, treatment, diagnosis and/or prognosis of an invasive disease. The invention features the compounds selected from the group comprising antisense compounds derived from the sequence of SEMA3E and/or sema3E, peptide compounds derived from the sequence of said semaphorins, anti-bodies against said semaphorins, and peptide compounds derived from the sequence of Plexin A receptor. Furthermore, the invention provides methods for prognosis and/or diagnosis of malignancy of cancer based on estimation of the levels of expression and proteolytic processing of said semaphorins in a sample of a tissue or body fluid. The invention also concerns a method for producing an attractant polypeptide by establishing a cleavage product of SEMA3E and/or sema3E.



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